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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,667	01/26/2004	Olusegun M. Falana	210589US (4081-05300)	8797

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EXAMINER	
RICHARD, CHARLES R	
ART UNIT	**PAPER NUMBER**
1712	

DATE MAILED: 01/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/764,667	FALANA ET AL.	
	Examiner	Art Unit	
	C. R. Richard	1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-42 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-42 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 9/10/04 to 7/19/05.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement(s) filed 13 September 2004 fail(s) to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each publication listed that is not in the English language. The reference in question has been placed in the application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1, 3-21 and 23-42 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. That is, the term "cystol" and "cystol ester" were not defined sufficiently in the specification (or claims as originally filed) for one skilled in the art to understand what is meant and hence the full extent of what is

invented/claimed. The terms do not appear to be in use in the art; the Examiner did an extensive search and came up only with the present application as using it. The closest thing found was cystol as in cell cytoplasm which does not appear to be what Applicant is concerned with here. It is of note that the EPO Examiner who did the PCT search and opinion mentions in the report that the terms could not be found (at least in the appropriate context); a copy of this report was provided to the (US) Examiner as part of an IDS submission in this case.

Note that claims 2 and 22 gave specific structures so are not rejected here. Claims 6 and 26 at least include a generic "cystol ester" so are rejected here.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1, 3-21 and 23-42 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As in the rejection under 35 USC 112, first paragraph, the claim terms "cystol" and "cystol ester" are not adequately defined and do not appear to be in use in the art, and so render the claims 1, 3-21 and 23-42 indefinite.

As to claims 6 and 25, "cystol ester" is included in a Markush group defining cystol esters. It is unclear what Applicant means by this.

As to claims 35-37, the use of the phrase "capable of" renders these claims indefinite. What conditions are included or excepted here? How would anyone know what scope was included if this phrase is used?

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-6, 8, 10-12, 21-26, 28, 30-32 and 38 are rejected under 35 U.S.C. 102(b) as being anticipated by Saito et al. in US Patent 4,259,225.

Saito teaches a composition made by mixing [the same as "combining" as used in the claims since combining may be taken broadly as in "any order" given how it is written in the claims] (A) a polyvinyl chloride paste with (B) a powdery coloring agent made up of (1) a pigment and (2) an aromatic carboxylic acid (monomeric) ester having up to 6 ester bonds per molecule (see column 2, lines 5-11). Component (A) may be a plastisol or organosol; the plastisol is prepared by dispersing polyvinyl chloride particles in a plasticizer so as to form a liquid, and the organosol is made by adding an organic solvent to the plastisol (see column 2, lines 12-28). These sols are ordinarily flowable [fluid] (see column 2, lines 32-36).

Component (B)(2) may be an ester of benzoic acid (see column 2, lines 62-65) and sorbitol hexabenzoate is specifically named at column 3, line 59-60.

Component (B)(1) may be a material such as carbon black or titanium dioxide [the latter at least can function as a weighting agent] (see column 4, lines 37-43). A liquid plasticizer may be used in place of a portion of (B)(2) such that it plasticizes (A) and may be one of various organic esters or a chlorinated paraffin (see column 5, lines 5-10).

(B)(2) may be present at 20 to 95 weight percent of (B), and (B) may be present at 0.01 to 25 or 0.1 to 20 parts by weight to 100 parts by weight of (A) (see column 4, lines 44-55). If (B)(2) is at 20 weight percent of (B), and (B) is at 20 parts by weight to 100 parts by weight of (A), then (B)(2) is at about 3 weight percent overall.

As an objective of Saito's invention is to keep the pigment from separating out (see column 1, lines 22-25), so reduction of sag takes place in the disclosed composition.

As to claims 4-5 and 24-25, the compositions of Saito would be useful as well bore fluids, drilling fluids, etc; Applicant's intended use does not distinguish this claim from the prior art (see *In re Pearson*, 181 USPQ 641).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 1-8, 10-12, 21-28, 30-32 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al. in US Patent 4,259,225.

The teachings of Saito are discussed in detail above. Saito teaches all of the limitations of the rejected claims, except for the toluoyl of claims 7 and 27.

As to claims 7 and 27, a teaching of the use of an aromatic carboxylic acid generally and benzoic acid in particular in the esters of (B)(2) (see above) would have made the use of toluic acid obvious to one of ordinary skill in the art. Homologues with such similar structures as benzoic and toluic acids would be expected to have very similar utility. The rejected claims are thus rendered obvious.

10. Claims 1-6, 8, 13, 21-26, 28, 33 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bock et al. in US Patent 4,458,757, optionally in view of Saito et al. in US Patent 4,259,225; Rothrock et al. in US Patent 2,437,046 and/or Smutny et al. in US Patent 3,112,338.

Bock discloses microemulsions comprising 0.3 to 98 weight percent of an extracting agent, 1 to 99 weight percent water and 0.2 to 15 weight percent surfactant (see column 3, lines 58-63); these emulsions may be made into coarse emulsions by adding an excess oil phase (see column 3, lines 65-68). The oil in the microemulsion may be synthetic oil or diesel oil among others (see column 4, lines 30-51). The surfactant may be a non-ionic surfactant such as esters of sorbitol or mannitol with the acid moiety of the ester ***generally*** [but not always] a fatty acid (see column 6, lines 41-44). These emulsions may be injected into fractured blocks of oil shale [particles of various sizes that could act as weighting agents also] which may be done underground or in a lab apparatus (see claim 1 and the examples); the combining step of the rejected method claims in implicit in this disclosure together with that of the composition of the emulsions (the combining step as written in the claims allows for a very broad interpretation as in mixing in no particular order). It is of note that the microemulsions may have some liquid crystal (particle) character (see column 3, lines 55-60), and it is well known that shales are clay materials. Reduction of sag would happen automatically in this system given the components are as in the rejected claims.

As to claims 4-5 and 24-25, the compositions of Bock would be useful as well bore fluids, drilling fluids, etc; Applicant's intended use does not distinguish this claim from the prior art (see *In re Pearson*, 181 USPQ 641).

Bock teaches all of the limitations of the rejected claims in the proper context, with the exception of a teaching of a specific ester that meets the limitations of these claims. A hexabenzoate of sorbitol or mannitol are esters that would meet these latter

limitations; Bock teaches them generically as esters of sorbitol or mannitol with the acid moiety of the ester ***generally*** [but not always] a fatty acid. It would have been obvious to one of ordinary skill in the art to use a hexabenzoate of sorbitol or mannitol given this last teaching. Perhaps the most common non-fatty acid carboxylic acid is benzoic; this would have occurred to one of ordinary skill in the art, since the teaching of generally brings to mind common exceptions.

Further support for this finding of obviousness can be found in the fact that these hexabenzoates are not uncommon and have been known for many years as evidenced by their use in Saito as discussed above (arguably used for a very similar purpose), as well as in Rothrock (see Rothrock at column 5, line 19) and Smutny (see Smutny at column 3, lines 10-15). It is of note that Applicant has written the claims very broadly for the most part (also see comments on this subject in PCT exam report that was discussed above), so what is considered relevant art here may be taken commensurately.

Note, Applicant has not presented evidence of unexpected results.

11. Claims 1-6, 10-13, 21-26, 30-33 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCabe et al. in US Patent Application Publication 2005/0087341, optionally in view of Saito et al. in US Patent 4,259,225; Rothrock et al. in US Patent 2,437,046 and/or Smutny et al. in US Patent 3,112,338.

McCabe discloses a liquid concentrate for treating wells comprising a hydrocarbon carrier, an organophillic clay suspending agent, a surfactant for dispersing the suspending agent and a particulate (see Abstract).

The hydrocarbon carrier may be mineral oil, a synthethic oil or an olefin (see page 2, paragraphs 15-16). The clay may preferably be quaternary ammonium bentonite (see page 2, paragraph 19). The surfactant may be a sorbitol ester at 0.1 to 2 weight percent (see page 2, paragraph 20). The combining step of the rejected method claims is written broadly enough such that it is disclosed at least implicitly in the disclosure of the components in the reference (see also Example 1). Sag would be reduced given the components here are as in the rejected claims.

As to claims 4-5 and 24-25, the compositions of McCabe would be useful as well bore fluids, drilling fluids, etc; Applicant's intended use does not distinguish the claims from the prior art (see *In re Pearson*, 181 USPQ 641). There is a specific teaching of use as a well treating fluid, in any case.

McCabe teaches all of the limitations of the rejected claims in the proper context, with the exception of a teaching of a specific ester that meets the limitations of these claims. A hexabenzoate of sorbitol is an ester that would meet these latter limitations; McCabe teaches them generically as sorbitol esters. It would have been obvious to one of ordinary skill in the art to use a hexabenzoate of sorbitol given this last teaching. Benzoic acid is a common carboxylic acid, and so would have occurred to one of ordinary skill in the art in this context.

Further support for this finding of obviousness can be found in the fact that that sorbitol hexabenzoate is not uncommon and has been known for many years, as evidenced by their use in Saito as discussed above (arguably used for a very similar purpose), as well as in Rothrock (see Rothrock at column 5, line 19) and Smutny (see Smutny at column 3, lines 10-15). It is of note that Applicant has written the claims very broadly for the most part (also see comments on this subject in PCT exam report that was discussed above), so what is considered relevant art here may be taken commensurately.

Note, Applicant has not presented evidence of unexpected results.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure: US Patents 4,188,236; 4,619,957; 4,690,996; 5,366,961 and 6,770,601.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. R. Richard whose telephone number is 571-272-8502. The examiner can normally be reached on M-Th, 8am-6pm and alternate Fridays, 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Charlene Richard

PHILIP TUCKER
PRIMARY EXAMINER
ART UNIT 1712